The Commonwealth of Massachusetts

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

D.T.E. 04-57

Petition of Bay State Gas Company for the recovery of an exogenous cost associated with its demand-side management programs for the period September 1, 2002 to August 31, 2003.

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FOR: BAY STATE GAS COMPANY
Petitioner

I. INTRODUCTION

On May 20, 2004, Bay State Gas Company ("Bay State" or "Company") petitioned the Department of Telecommunications and Energy ("Department") to recover lost base revenues ("LBR") associated with its demand-side management ("DSM") programs for the twelve-month period ending August 31, 2003. The Department docketed this petition as D.T.E. 04-57. The Company seeks to recover the LBR, with carrying costs, as an exogenous cost adjustment in accordance with the standard established by the Department in Colonial Gas Company, D.T.E. 00-73 (2001).[1] The proposed exogenous cost includes costs were incurred from September 1, 2002 through August 31, 2003 for DSM programs installed before 1999.

Pursuant to notice duly issued, the Department held a public hearing on July 14, 2004. The Department held an evidentiary hearing on August 24, 2004. At the evidentiary hearing, Bay State sponsored the testimony of Joseph A. Ferro, manager of regulatory policy for the Company. The evidentiary record consists of twenty-five exhibits and two record requests. On September 21, 2004, the Company filed a brief.

II. DESCRIPTION OF PROPOSAL

Bay State seeks to recover $2,249,173 of LBR as an exogenous cost adjustment due to the change in regulatory policy applied to the Company resulting from Colonial Gas Company, D.T.E. 97-112 (1999) (Exhs. BSG-1, at 5; DTE 2-1). The Company states that of the

[1] The Department has defined exogenous costs as positive or negative cost changes beyond a company's control that would significantly affect the company's operations. Eastern/Colonial Acquisition, D.T.E. 98-128, at 54 (1999).

$2,249,173 it seeks, $1,412,834, including $88,114 in carrying costs,[2] is from residential DSM programs, and $836,340, including $53,772 in carrying costs, is from commercial and industrial ("C&I") programs (Exh. DTE 2-1).[3]

To determine the total LBR amount to be recovered as an exogenous cost, the Company calculated the total energy savings per DSM program based on the method approved by the Department in Bay State Gas Company, D.T.E. 01-27 (2001); Bay State Gas Company, D.P.U. 96-98 (1997); and Bay State Gas Company, D.P.U. 96-76 (1996). The Company then multiplied the energy savings by the applicable net revenue rates to arrive at a preliminary LBR amount (Exhs. BSG-1, Att. B; BSG-3; DTE 1-2; DTE 1-3; DTE 1-5; DTE 1-13). Finally, the Company applied the appropriate carrying cost charges to the preliminary LBR amount to obtain the total LBR (Exh. BSG-2, at 1-3).

The Company seeks to recover only for its LBR associated with DSM programs installed prior to February 1999 (Exh. BSG-1, at 5). The Company proposes to collect the exogenous cost amount through its November 2004 through October 2005 Local Distribution Adjustment Factor ("LDAF") (Exh. BSG-1, at 6).

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2 Carrying costs are derived by applying the Company's pre-tax cost of capital of 16.22 percent, approved by the Department in the Company's base rate proceeding in D.P.U. 89-81, to the LBR (Exhs. DTE 1-2; DTE 1-3).

3 The Company uses the prime interest rate to calculate the carrying costs on the outstanding LBR balance, once the balance is transferred onto the recovery rate (amortization) schedule (Exh. DTE 1-2). According to the Company, the use of the prime rate for deriving the carrying cost is consistent with the calculation of carrying costs on the reconciling items in the Cost of Gas Adjustment Clause, i.e., gas costs, and in the components of the Local Distribution Adjustment Clause (id.).

III. LBR RECOVERY

A. Introduction

In D.T.E. 97-112, at 32-33, the Department modified its LBR policy for all local gas distribution companies by limiting LBR recovery to a period equal to the average historic time span between the last four rate cases for each company, the rolling period method ("RPM").[4] In Eastern/Colonial Acquisition, D.T.E. 98-128, at 55 (1999), the Department recognized that, when the RPM policy change had cost consequences, it would meet the definition of an exogenous cost for recovery purposes.

In its present petition, Bay State claims that it has LBR due to the change in regulatory policy applied to the Company resulting from D.T.E. 97-112 (Exh. BSG-1, at 5). Consistent with our precedent, we shall examine the Company's calculation of its LBR prior to determining whether it may recover that amount as an exogenous cost. See e.g., Colonial Gas Company, D.T.E. 03-90, at 11-12 (2004); Bay State Gas Company, D.T.E. 03-36, at 9-10 (2004); Colonial Gas Company, D.T.E. 02-58, at 15-16 (2003); Colonial Gas Company, D.T.E. 01-73, at 17 (2002); D.T.E. 00-73, at 21; D.T.E. 98-128, at 55. To do this, we review the Company's savings estimates (which, when multiplied by the Company's base rates, result in the LBR), and, necessarily, the impact evaluations on which the savings estimates are based.

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4 Previously, LBR for DSM programs installed since a company's last rate case were recoverable over the lives of the programs installed. D.P.U. 97-112, at 9-11.

B. Standard of Review for Savings Estimates

In evaluating savings estimates for gas DSM programs, the Department draws on its experience with electric DSM programs. D.P.U. 96-98, at 1. The Department has found that many estimates of savings that are not actually measured have been biased upwards substantially and have therefore required companies to measure savings using impact evaluations.[5] See Massachusetts Electric Company, D.P.U. 92-217-B at 4-5 (1994). The Department has identified and approved a wide variety of techniques for evaluating savings estimates. Id. at 7-16, 35-38, 47-51, 68-74. Recognizing that obtaining more precise savings estimates has a cost, the Department directed companies to seek increased precision where the marginal value of more precise estimates exceeds the marginal cost of obtaining the additional precision. Id. at 5.

In order for a company's DSM savings estimates to be accepted, the company must demonstrate that its impact evaluations are reviewable, appropriate, and reliable. D.P.U. 96-98, at 2, citing D.P.U. 92-217-B at 4-7. An impact evaluation is considered reviewable if it is complete, clearly presented, and contains a summary that sufficiently explains all assumptions and data presented. D.P.U. 92-217-B at 4-6. An impact evaluation is considered appropriate if evaluation techniques selected are reasonable given the characteristics of a particular DSM program, the company's resources, and the available methods for determining demand and energy savings estimates. Id. at 6-7. Finally, an impact evaluation is

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[5] Impact evaluations use quantitative analyses to assess energy and capacity savings resulting from the implementation of DSM programs. D.P.U. 92-217-B at 1, n.1.

considered reliable if the savings estimates included in the evaluation are unbiased and are measured to a sufficient level of precision, given the characteristics of a particular DSM program, the company's resources, and the available methods for determining demand and energy savings estimates. Id. at 7. In Boston Gas Company, D.P.U. 94-15, at 52-54 (1995), the Department ordered local distribution companies, when petitioning for the recovery of LBR and incentives from DSM programs, to develop energy savings estimates for their residential and multifamily programs using the Gas Evaluation and Monitoring Study ("GEMS") method,[6] subject to certain conditions.

C. Calculation of Savings Estimates and LBR

1. Introduction

Prior to D.T.E. 97-112, the Department allowed local distribution companies to include in the calculation of total energy savings and LBR all DSM programs installed by them since the inception of their DSM programs. In D.T.E. 97-112, the Department changed its policy and required companies to use the RPM to calculate energy savings and LBR. Under the RPM, the Company calculates total energy savings and LBR resulting from DSM programs installed by the Company within the previous four years. D.T.E. 97-112, at 33. In this filing,

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[6] GEMS was a comprehensive research project that used a variety of analytical tools to evaluate the effectiveness of residential and multi-family natural gas DSM programs. D.P.U. 94-15, at 1, n.1. The "GEMS method" refers to the overall analytical framework established to: (1) determine the effectiveness of the company's residential DSM programs by estimating the amount of gross energy saved from a sample of its residential customers; (2) transfer these results to the company's residential DSM and non-host local distribution companies' DSM programs; and (3) adjust gross savings to account for factors that affect net program savings. Id. at 1, n.2.

Bay State computed all of the LBR for the twelve-month period ending August 2003 (Exh. BSG-1, at 9). This figure represents the total LBR resulting from all DSM measures previously installed beginning with the program's inception (id.). The total LBR was then reduced by the amount the Company had previously recovered using the RPM (through its lost net revenue filings) for the same twelve-month period (id. at 9-10). Bay State requests the recovery of $2,249,173 in LBR as an exogenous cost associated with its DSM programs (id. at 5;Exh. DTE 2-1).

2. Method of Calculation

a. Energy Savings

In the following section, we review Bay State's calculation of energy savings, LBR and exogenous cost. To calculate the monthly total energy or therm savings for each type of DSM measure installed, the Company used engineering benchmarks and energy audits performed by its energy auditing vendors (Exhs. BSG-4; D.T.E. 1-16). The Company calculated gross annual therm savings that were aggregated by measure type, by rate class, and by month of installation (id.). Bay State reduced the gross annual therm savings by the measure-specific realization rates to calculate the net annual therm savings (Exh. BSG-5, Att. F at 8.). The realization rates showed the relationship between the gross therm savings and those actually realized, based on a sample of the installed measures (id.).

The Company states that the annual therm savings for heating measures were divided by annual normal effective degree days ("EDD") (id.). The resulting per EDD unit savings were then multiplied by the actual observed monthly EDDs to develop monthly actual therm savings (id.). For non-heating measures, the annual therm savings were divided by twelve to determine the monthly therm savings (id.). Bay State indicates that for the twelve-month period ending August 31, 2003, the total net therm savings for all DSM measures using the RPM was 7,450,366 therms (Exh. DTE 2-1). For residential heating DSM measures, the total net therm savings was 2,616,431 therms (id.). The total net therm savings for residential non-heating measures was 23,789 therms (id.). The corresponding net therm savings for the multi-family and C & I measures was 1,193,462 therms and 3,616684 therms, respectively (id.).

b. LBR

To calculate the monthly LBR for each measure, the Company multiplied the total monthly therm savings by the weighted average incremental net revenue rates by rate class for that month (id.). Bay State then summed the monthly LBR for each measure to produce the total LBR for all measures for the given month (Exh. BSG-4). Bay State applied the pre-tax cost of capital approved by the Department in the Company's last rate case to the unrecovered average monthly LBR balances in order to compute the carrying costs on the balances (Exh. D.T.E. 1-2). Based on the net therm savings using the RPM, Bay State determined that for the twelve-month period ending August 31, 2003, the total LBR for all measures installed as part of the Company's DSM programs was $1,411,563 with carrying costs of $128,031, for a total of $1,539,594 (id.). For the residential heating measures, the LBR was $608,438, with carrying costs of $55,527 (id.). For residential non-heating measures, the LBR was ($5,923), with carrying costs of ($573) (id.). For the multi-family and C&I measures, the LBRs were

$188,213 and $620,835, respectively, with associated carrying costs of $22,611 and $50,466 (id.).

Bay State indicates that beginning in 2000, the Company no longer recovered the total LBR attributed to all of its DSM programs because the RPM restricts the recovery of LBR to those measures installed within the last four years (Exh. BSG-1, at 7). The Company states that, based on the method which was in effect before the RPM was implemented in 2000, the total net therm savings for the twelve-month period ending August 2003 was 18,162,983 therms (Exh. DTE 2-1). For residential heating DSM measures, the total net therm savings was 6,508,730 therms (id.). For residential non-heating measures, the total net therm savings was 135,836 therms (id.). The corresponding net therm savings for the multi-family and C & I measures were 3,510,372 therms and 8,008,045 therms, respectively (id.). Based on the net therm savings using the old method, Bay State determined that for the twelve-month period ending August 31, 2003, the total LBR for all measures installed since the inception of the Company's DSM programs was $3,518,851, with carrying costs of $269,916 for a total of $3,788,767 (Exh. DTE 1-10). For the residential heating measures, the LBR was $1,472,238, with carrying cost of $112,351 (id.). For residential non-heating measures, the LBR was $52,073, with carrying costs of $3,719 (id.). And for the multi-family and C&I measures, the LBRs were $591,138 and $1,403,403, respectively (id.). The carrying costs for the multi-family and C&I measures were $49,609 and $104,237, respectively (id.).

c. Exogenous Cost

The Company states that it calculated the exogenous cost of $2,107,288 as the difference between the total LBR under the prior method (i.e., $3,518,851) and the total LBR under the RPM (i.e., $1,411,563) (Exhs. BSG-1, at 12; DTE 2-1). Similarly, the Company calculated the associated carrying costs of $141,886 as the difference between the total carrying costs under the prior method (i.e., $269,916) and the total carrying costs under the RPM (i.e., $128,031) (Exh. DTE 2-1).

d. Analysis and Findings

The Department has reviewed the Company's estimates of energy savings and LBR calculation associated with its residential and C&I programs. The Company's impact evaluations for both residential and C&I programs are complete and clearly presented, with all data and assumptions sufficiently explained. Accordingly, the Department finds that the Company's impact evaluations for its residential and C&I programs are reviewable. The Department also notes that in this proceeding Bay State used the same evaluation methods to calculate total energy savings, LBR, and associated carrying costs for its residential and C&I programs that were approved in D.T.E. 03-36, at 15-16. Thus, the Department finds that the estimates are reliable and that the Company has correctly calculated the LBR amount associated with the residential and the C&I programs. Furthermore, the Department finds that the evaluation techniques that Bay State uses to estimate energy savings for its residential and C&I programs are reasonable and are consistent with previous Department Orders. See

D.T.E. 03-90; D.T.E. 03-36; D.T.E. 01-73. Therefore, we find that the Company's impact evaluations and savings estimates for its residential and C&I programs are appropriate.

IV. EXOGENOUS COST ADJUSTMENT

A. Introduction

Having determined that Bay State correctly calculated its LBR for the period September 2002 through August 2003, we now address whether the LBR amount may be recovered as an exogenous cost. Specifically, we review the Company's position and our standard for exogenous cost recovery.

B. Company Proposal

Bay State seeks to recover $2,249,173 through its Local Distribution Adjustment Clause ("LDAC") as an exogenous cost pursuant to NIPSCO-Bay State Acquisition, D.T.E. 98-31 (1998) (Exhs. BSG-1, at 5-6; DTE 2-1, Att. 2-1).[7] The $2,249,173 is comprised of $1,412,834 in LBR inclusive of carrying costs associated with its residential DSM program,[8] and $836,340 in LBR inclusive of carrying costs associated with its C&I DSM programs (Exh. DTE 2-1, Att. 2).

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7 In response to the Department's information request, Bay State reduced the original figure from $2,315,691 to $2,249,173 to incorporate the reduction in energy savings associated with expired DSM measures included in the original energy savings estimates (Exhs. DTE 1-23, Att. 1-23; DTE 2-1, Att. 2-1).

8 The figure for the residential program includes the residential heating program, the residential non-heating program, and the multi-family program (Exh. DTE 2-1, Att. 2-1).

The Company argues that the Department should grant LBR recovery of $2,249,173, because such recovery satisfies the Department's standard for recovery of exogenous costs in accordance with D.T.E. 03-36 (Company Brief at 13-16). Bay State notes that the Department has previously found that a change in the Department's LBR policy that had cost consequences could fall within the definition of exogenous costs, and that the Department established an exogenous cost qualifying threshold of $500,000 for Bay State based on the relative magnitude of the Company's operating revenues (Exh. BSG-1, at 7; Company Brief at 14, citing D.T.E. 98-31, at 18). The Company argues, therefore, that it has satisfied the Department's conditions for the recovery of exogenous costs associated with its DSM program because: (1) the Company has incurred a cost consequence as a direct result of the Department's policy change in LBR calculation in D.T.E. 97-112; (2) the exogenous cost of $2,249,173, is greater than the established threshold of $500,000 to qualify for recovery; and (3) the Company's earnings independent of recovering the proposed exogenous costs are reasonable (Exh. BSG-1, at 7-9; Company Brief at 13-16). Bay State states that the Company's 2002 and 2003 returns on equity ("ROE") were 7.73 percent and 10.12 percent, respectively (Exh. BSG-1, at 8-9). Bay State contends that the Company's 2002 and 2003 ROE are (a) lower than the ROE allowed by the Department for LDCs in recently litigated cases,[9] and (b) lower than the

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[9] Bay State stated that the Department approved an ROE of 10.5 percent for Boston Gas Company; 10.5 percent for Berkshire Gas Company; and 10.0 percent for Fitchburg Gas and Electric Light Company in their most recent rate cases (Company Brief at 15, citing Boston Gas Company, D.T.E. 03-40, at 364 (2003); Berkshire Gas Company, D.T.E. 01-56, at 119 (2002); Fitchburg Gas and Electric Light Company, D.T.E. 02-24/25, at 30 (2002).

11.40 percent ROE approved for Bay State in the Company's last base rate proceeding in D.P.U. 92-111 (Exh. BSG-1, at 8-9; Company Brief at 15). Bay State argues that, based on its 2002 and 2003 ROE, the Company's earnings continue to warrant approval of an exogenous cost adjustment (Exh. BSG-1, at 8-9).

C. Standard of Review

The Department has defined exogenous costs as positive or negative cost changes beyond a company's control that would significantly affect the company's operations. D.T.E. 98-128, at 54;D.T.E. 98-31, at 17; D.T.E. 98-27, at 19 (1998). Included in that definition are cost changes resulting from changes in tax laws that uniquely affect the local gas distribution industry; accounting changes unique to the local gas distribution industry; and regulatory, judicial, or legislative changes uniquely affecting the local gas distribution industry. D.T.E. 98-27, at 19; Boston Gas Company, D.P.U. 96-50 (Phase I) at 292 (1996). In D.T.E. 98-128, at 55, the Department recognized that a change in our regulatory policy that had cost consequences, including our LBR policy, could fall within our definition of exogenous cost.

To avoid costly regulatory processes over minimal adjustments, however, the Department requires cost changes to meet a minimum threshold, based on the company's operating revenues, before the company may propose recovery of an exogenous cost. Id.; D.T.E. 98-31, at 18; D.P.U. 96-50 (Phase I) at 293. The Department established thresholds on a company-specific basis to reflect a "principle of proportionality" in relation to the company's operating revenues. D.T.E. 98-128, at 55-56. The Department determined that any individual exogenous cost must exceed the company's threshold in a particular year in order for the petitioners to request recovery of that particular exogenous cost increase. Id.; D.T.E. 98-31, at 18; D.P.U. 96-50 (Phase I) at 293. In Bay State's case, the Department established a minimum threshold of $500,000. D.T.E. 98-31, at 18.

To recover exogenous costs during a rate plan, petitioners must propose exogenous cost adjustments, with supporting documentation and rationale, as to the appropriateness of recovery of the proposed exogenous costs. D.T.E. 98-128 at 55; D.T.E. 98-31, at 17-18. The Department also has indicated that the earnings of the company will be a factor in considering whether to approve a request for recovery of an exogenous cost. D.T.E. 02-58, at 15-17; D.T.E. 01-73, at 17-18; D.T.E. 00-73, at 21.

Therefore, a proposal for an exogenous cost adjustment must meet a three-part test. Proponents of an exogenous cost adjustment bear the burden of demonstrating: (1) that the cost change is of a type that is external to the company and is beyond the company's control; (2) that the magnitude of the cost change exceeds the company's exogenous cost threshold; and (3) that the company's earnings, independent of recovering a proposed exogenous cost, are reasonable. See, e.g., D.T.E. 00-73, at 21.

D. Analysis and Findings

We now apply the three-part test. Regarding the first element, the Company's request to recover $2,107,288 of LBR as an exogenous cost, plus carrying costs of $141,886, represents the annual impact of the Department's change in regulatory policy in D.T.E. 97-112. In D.T.E. 98-128, at 55, the Department found that an LBR policy change meets the definition of exogenous costs. See, D.T.E. 03-36 at 12 (2003). Therefore, we find that the Company's present request meets the requirement for the first element.

Regarding the second element, the Department has established a monetary threshold for exogenous cost recovery of $500,000 for Bay State. See Bay State-NIPSCO Merger Order at 18. Bay State correctly calculated the cost impact of the change in regulatory policy to be $2,107,288 plus carrying costs. Therefore, we find that the cost change exceeds the Company's minimum threshold, and Bay State has met the requirement for the second element.

Regarding the third element, we review whether the Company's earnings, independent of exogenous cost recovery, were reasonable. Bay State's ROE for 2002 including exogenous costs recovery was 8.18 percent. D.T.E. 03-36, at 14. The Company's 2003 ROE was 10.12 percent including the exogenous costs recovery (Exh. BSG-1, at 8-9). These returns are lower than the ROE allowed by the Department for LDCs in the most recently litigated rate cases. See, e.g., D.T.E. 03-40, at 364; D.T.E. 02-24/25, at 230; D.T.E. 01-56, at 119. The Department finds that the level of Bay State's earnings in 2003 was reasonable, and the Company has met the third element.

We, therefore, find that Bay State has met the requirements of our standard to recover exogenous costs. Accordingly, the Department allows Bay State's request to recover the LBR as an exogenous cost in this case.

V. ORDER

Accordingly, after due notice, hearing, and consideration, it is

ORDERED: That the savings estimates and LBR for Bay State's DSM programs for the period September 2002 through August 2003 are hereby approved; and it is

FURTHER ORDERED: That the Company may recover total lost-base revenues of $2,249,173, which includes carrying costs, associated with its demand-side management programs for the period September 2002 through August 2003, per Table I attached to this Order.

By Order of the Department,

/s/
Paul G. Afonso, Chairman

/s/
James Connelly, Commissioner

/s/
W. Robert Keating, Commissioner

/s/
Judith F. Judson, Commissioner

TABLE I

Lost Base Revenue Cost Breakdowns

Customer Class	**LBR to be Recovered As Exogenous Cost**	**Associated Carrying Costs to be Recovered As Exogenous Cost**	**Total LBR to be Recovered As Exogenous Cost**
Residential	$1,324,720	$88,114	$1,412,834
Commercial & Industrial	$782,568	$53,772	$836,340
Total	**$2,107,288**	**$141,886**	**$2,249,173**

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.